(19) World Intellectual Property Organization International Bureau

ZIPO OMPI

| 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010

(43) International Publication Date 18 December 2003 (18.12.2003)

PCT

(10) International Publication Number WO 03/104993 A1

(51) International Patent Classification7: G06F 11/07, 1/32

(21) International Application Number: PCT/IB03/02098

(22) International Filing Date: 4 June 2003 (04.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 102 25 472.9

10 Dec 04

10 June 2002 (10.06.2002) DE

- (71) Applicant (for DE only): PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]; Steindamm 94, 20099 Hamburg (DE).
- (71) Applicant (for all designated States except DE, US):
 KONINKLIJKE PHILIPS ELECTRONICS N.V.
 [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): WAGNER, Martin [DE/DE]; c/o Philips Intellectual Property & Standards

GmbH, Weisshausstr. 2, 52066 Aachen (DE). MUTH, Matthias [DE/DE]; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).

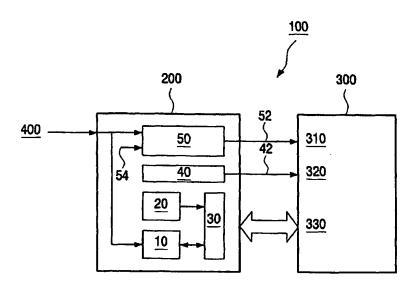
- (74) Agent: MEYER, Michael; Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: METHOD AND BASE CHIP FOR MONITORING THE OPERATION OF A MICROCONTROLLER UNIT



(57) Abstract: To enable a method and a base chip (200) for monitoring the operation of at least one microcontroller unit (300) that is intended for at least one application and is associated with a system (100) to be further developed in such a way that the operation of the microcontroller unit (300), which is associated with a serial system, is monitored in such a way as to enable faulty operation, and particularly faulty operation that discharges the battery, to be reliably prevented, it is proposed that the microcontroller unit (300) has at least one non-volatile memory area (10) associated with it, the memory area (10) can be read from and/or written to by the microcontroller unit (300), and at least one set of statistics, and in particular a set of fault statistics, relating to the operation of the microcontroller unit (300), can be kept by means of the memory area (10).

/O 03/104993 A



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

ini ial Application No PC 03/02098

A. CLASSIFICATION OF SUBJECT MAT IPC 7 G06F1/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) $IPC \ 7 \ G06F$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
DE 196 11 942 A (DAIMLER BENZ AG) 2 October 1997 (1997-10-02)	1,4,5, 8-10 2
abstract figures 6-8 column 2, line 4 - line 31 column 3, line 41 -column 8, line 37 column 12, line 20 -column 14, line 28 column 20, line 36 - line 55	3,6,7
US 5 594 646 A (ITOH YASUNOBU ET AL) 14 January 1997 (1997-01-14) column 1, line 5 -column 3, line 21 column 5, line 55 - line 57	2
	DE 196 11 942 A (DAIMLER BENZ AG) 2 October 1997 (1997-10-02) abstract figures 6-8 column 2, line 4 - line 31 column 3, line 41 -column 8, line 37 column 12, line 20 -column 14, line 28 column 20, line 36 - line 55 US 5 594 646 A (ITOH YASUNOBU ET AL) 14 January 1997 (1997-01-14) column 1, line 5 -column 3, line 21 column 5, line 55 - line 57

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
 Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed 	 *T° later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&° document member of the same patent family
Date of the actual completion of the international search 23 September 2003	Date of mailing of the international search report 02/10/2003
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk	Authorized officer
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Lanchès, P

INTERNATIONAL SEARCH REPORT

Int: al Application No PC 03/02098

C.(Continu	ation) DOCUMENTS CONSIDER TO BE RELEVANT	PC 03/02098
Category °		Relevant to claim No.
Α	EP 0 357 588 A (VOEST ALPINE AUTOMOTIVE) 7 March 1990 (1990-03-07) claim 1	1-10
A	"PERMANENT ERROR LOG IN AN ADAPTER CARD" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 37, no. 10, 1 October 1994 (1994-10-01), page 657 XP000475816 ISSN: 0018-8689 page 657, paragraph 2	4
A	US 5 600 785 A (POTTER MARK R) 4 February 1997 (1997-02-04) abstract	3

Patent document		Publication		PCT Patent family	03/02098 Publication
cited in search report		date	member(s)		date
DE 19611942	Α	02-10-1997	DE	19611942 A1	02-10-1997
			AT	201797 T	15-06-2001
			DE	59607020 D1	05-07-2001
			WO	9736398 A1	02-10-1997
			EP	0890241 Al	13-01-1999
			ES	2159363 T3	01-10-2001
			JP	2000504517 T	11-04-2000
			JP	3343685 B2	11-11-2002
			KR	2000005044 A	25-01-2000
			US	6438462 B1	20-08-2002
US 5594646	Α	14-01-1997	JP	3138709 B2	26-02-2001
			JP	7181112 A	21-07-1995
EP 0357588 A	Α	07-03-1990	DE	3829546 C1	16-11-1989
			ΑT	74402 T	15-04-1992
			DE	58901080 D1	07-05-1992
			EΡ	0357588 A2	07-03-1990
			ES	2030594 T3	01-11-1992
			JP	2112652 A	25-04-1990